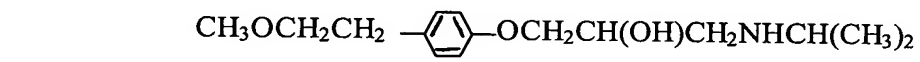
CLAIMS

We claim:

1. A process for obtaining an aryloxypropanolamine of the chemical name 1-[4-)2-methoxyethyl)-phenoxy]-3-[(1-methylethyl)amino]-2-propanol of the formula



comprising:

A) combining 4-(2-methoxyethyl)phenol with epichlorhydrin;

B) reacting said combination of 4-(2-methoxyethyl)phenol and epichlorhydrin in an alkaline aqueous medium;

C) extracting and washing the organic phase reaction product of Step B with water at pH 7.5 $\pm$0.5; and

D) obtaining a crude reaction product comprising 3-[4-(2-methoxyethyl)phenoxy]-1,2-epoxypropane;

E) combining said 3-[4-(2-methoxyethyl)phenoxy]-1,2-epoxypropane with isopropanolamine;

F) reacting said combination of 3-[4-(2-methoxyethyl)phenoxy]-1,2-epoxypropane and isopropanolamine in an aqueous medium at a temperature about 30 °C, to obtain 1-[4-)2-methoxyethyl)-phenoxy]-3-[(1-methylethyl)amino]-2-propanol.

2. The process of claim 1, wherein:

A) said 4-(2-methoxyethyl)phenol and said epichlorhydrin are combined in a molar ratio of about 1 : 1.31.

3. The process of claim 2, wherein:

B) said reacting 4-(2-methoxyethyl)phenol and epichlorhydrin is at 42.5 $\pm$2.5°C; and

D) said crude reaction product is composed of about 97 to 99% of 3-[4-(2-methoxyethyl)phenoxy]-1,2-epoxypropane.

4. The process of claim 3, wherein:

E) said 3-[4-(2-methoxyethyl)phenoxy]-1,2-epoxypropane and isopropanolamine are combined in a molar ratio of about 1 : 5.25.

5. The process of claim 4, further comprising:

G) extracting said 1-[4-)2-methoxyethyl)-phenoxy]-3-[(1-methylethyl)amino]-2-propanol from said aqueous reaction medium with a polar solvent at a temperature of not more than about 25° C; and

H) removing said solvent by distillation under reduced pressure.

6. The process of claim 5, further comprising:

I) combining said 1-[4-)2-methoxyethyl)-phenoxy]-3-[(1-methylethyl)amino]-2-propanol with succinic acid in a molar ratio of approximately 1 : 2 in a solution of pH about 7.2, and

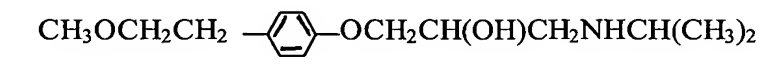
J) isolating from said solution the succinate form of said 1-[4-)2-methoxyethyl)-phenoxy]-3-[(1-methylethyl)amino]-2-propanol.

7. The process of claim 5, further comprising:

I) combining said 1-[4-)2-methoxyethyl)-phenoxy]-3-[(1-methylethyl)amino]-2-propanol with tartaric acid in a molar ratio of approximately 1 : 2 in a solution of pH about 6.2; and

J) isolating from said solution the tartarate form of said 1-[4-)2-methoxyethyl)-phenoxy]-3-[(1-methylethyl)amino]-2-propanol.

8. A product of the chemical name 1-[4-)2-methoxyethyl)-phenoxy]-3-[(1-methylethyl)amino]-2-propanol of the formula



made by a process comprising:

A) combining 4-(2-methoxyethyl)phenol with epichlorhydrin;

B) reacting said combination of 4-(2-methoxyethyl)phenol and epichlorhydrin in an alkaline aqueous medium;

C) extracting and washing the organic phase reaction product of Step B with water at pH 7.5 $\pm$0.5; and

D) obtaining a crude reaction product comprising 3-[4-(2-methoxyethyl)phenoxy]-1,2-epoxypropane;

E) combining said 3-[4-(2-methoxyethyl)phenoxy]-1,2-epoxypropane with isopropanolamine;

F) reacting said combination of 3-[4-(2-methoxyethyl)phenoxy]-1,2-epoxypropane and isopropanolamine in an aqueous medium at a temperature about 30° C, to obtain 1-[4-)2-methoxyethyl)-phenoxy]-3-[(1-methylethyl)amino]-2-propanol.

9. The product of claim 8, wherein:

A) said 4-(2-methoxyethyl)phenol and said epichlorhydrin are combined in a molar ratio of about 1 : 1.31.

10. The product of claim 9, wherein:

B) said reacting 4-(2-methoxyethyl)phenol and epichlorhydrin is at 42.5 $\pm$2.5° C; and

D) said crude reaction product is composed of about 97 to 99% of 3-[4-(2-methoxyethyl)phenoxy]-1,2-epoxypropane.

11. The product of claim 10, wherein:

E) said 3-[4-(2-methoxyethyl)phenoxy]-1,2-epoxypropane and isopropanolamine are combined in a molar ratio of about 1 : 5.25.

12. The process of claim 11, further comprising:

G) extracting said 1-[4-)2-methoxyethyl)-phenoxy]-3-[(1-methylethyl)amino]-2-propanol from said aqueous reaction medium with a polar solvent at a temperature of not more than about 25° C; and

H) removing said solvent by distillation under reduced pressure.

13. The process of claim 12, further comprising:

I) combining said 1-[4-)2-methoxyethyl)-phenoxy]-3-[(1-methylethyl)amino]-2-propanol with succinic acid in a molar ratio of approximately 1 : 2 in a solution of pH about 7.2, and

J) isolating from said solution the succinate form of said 1-[4-)2-methoxyethyl)-phenoxy]-3-[(1-methylethyl)amino]-2-propanol.

14. The process of claim 12, further comprising:

I) combining said 1-[4-)2-methoxyethyl)-phenoxy]-3-[(1-methylethyl)amino]-2-propanol with tartaric acid in a molar ratio of approximately 1 : 2 in a solution of pH about 6.2; and

J) isolating from said solution the tartarate form of said 1-[4-)2-methoxyethyl)-phenoxy]-3-[(1-methylethyl)amino]-2-propanol.

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